## Amendments to the claims

1. (Currently amended) The method for evaluating a three dimensional set of point values , said method comprising, in combination, the steps of:

storing said three dimensional set of point values in a digital memory device,

forming a physical object which defines a three dimensional surface,

employing one or more real-time position and geometry sensors to ~~determine~~ produce surface geometry data specifying the geometry and position of said three dimensional surface,

employing a processor coupled to said digital memory and to said real-time position and geometry sensors to compare said set of point values to said surface geometry data to identify a subset of said point values that are congruent with corresponding locations in said three dimensional surface currently specified by said surface geometry data,

projecting an image representative of said subset of point values onto said three dimensional surface of said physical object, and

manually manipulating said physical object to reposition said three dimensional surface to cause a new image representative of a different subset of said point values to be projected onto said three dimensional surface.

2. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 1 wherein said physical object comprises a deformable material that may be shaped to alter the position of said three dimensional surface.

3. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 2 wherein said physical object is a deformable plastic material that retains its shape after being deformed to reposition said three dimensional surface.

4. (Currently amended) The method for evaluating a three dimensional set of point values as set forth in claim 1 wherein said ~~position sensor is a laser scanner~~ one or more real-time position and geometry sensors include one or more laser scanners.

5. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 1 wherein said physical object is formed from a translucent material and wherein said ~~position sensor measures~~ one or more real-time position and geometry sensors measure the position of said surface by measuring the extent to which light is attenuated when passing through said translucent material to reach said surface.

6. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 5 wherein said physical object comprises an aggregation of translucent objects.

7. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 5 wherein said physical object is formed from translucent beads.

8. Canceled

9. Canceled

10. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 1 wherein said physical object comprises an aggregation of smaller movable objects ~~which may be individually moved to reposition said three dimensional surface~~ and wherein said step of manually manipulating said physical object to reposition said three dimensional surface to cause a new image representative of a different subset of said point values to be projected onto said three dimensional surface is performed by moving one or more individual ones of said smaller movable objects.

11. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 10 wherein said smaller objects comprise rectilinear blocks of material.

12. (Original) The method for evaluating a three dimensional set of point values as set forth in claim 10 wherein said smaller objects comprise substantially spherical beads.

13. (Currently amended) Apparatus for evaluating a three dimensional array of data values comprising, in combination,

a manually manipulatable physical object which defines a surface whose shape or position may be altered,

a position sensor for generating position data specifying the geometry of said surface,

a memory device for storing said three dimensional array of data values,

a processor coupled to said position sensor and to said memory device for comparing said three dimensional array of data values with said position data to identify selected ones of said data values which have positions in said array that correspond to the current geometry of said surface, and

a projector for illuminating said surface of said physical object with an image representative of said selected ones of said data values as the shape or position of said surface is altered during the manual manipulation of said physical object.

14. (Original) Apparatus for evaluating a three dimensional array of data values as set forth in claim 13 wherein said physical object comprises a deformable material that may be manually manipulated to alter the position of said surface.

15. (Original) Apparatus for evaluating a three dimensional array of data values as set forth in claim 13 wherein said physical object is constructed of a material which forms a surface whose geometry varies when said object is manually manipulated and upon which an image may be projected and viewed by a user.

16. (Original) Apparatus for evaluating a three dimensional array of data values as set forth in claim 15 wherein said physical object comprises a deformable material that may be shaped to alter the shape or position of said three dimensional surface.

17. (Currently amended) Apparatus for evaluating a three dimensional array of data values as set forth in claim 15 wherein said physical object comprises an aggregation of smaller movable objects which ~~may be~~ are individually moved to alter the shape or position of said surface to vary said image.